IN THE CLAIMS

Claim 1 (Currently Amended) A method of winding a yarn in a plurality of superposed layers onto a cylindrical support ~~(20)~~ having a longitudinal axis ~~(X)~~ and fastened around a spindle ~~(21)~~ driven in a rotational movement, in which the yarn is wound by running over a yarn guide ~~(34)~~ which moves in a backward and forward motion (M) parallel to the longitudinal axis ~~(X)~~ of the support and is controlled so as to form a bobbin having a shape with two frustoconical ends, said bobbin comprising a base cone ~~(12)~~ having a first generatrix ~~(L2)~~ inclined at ~~an~~ a first acute angle ~~(α)~~ to the longitudinal axis ~~(X)~~ and an unwind cone ~~(13)~~ having a second generatrix ~~(L3)~~ inclined at ~~an~~ a second acute angle ~~(β)~~ to the longitudinal axis ~~(X)~~, and a main body ~~(11)~~ which joins the two frustoconical ends and has a frustoconical shape, said main body ~~(11)~~ comprising a third generatrix ~~(L1)~~, ~~an~~ a first end section ~~(11a)~~ which forms a base ~~(12a)~~ of the base cone ~~(12)~~, ~~said base (12a) having a diameter D1 and an~~ and a second end section ~~(11b)~~ which forms a base ~~(13a)~~ of the unwind cone ~~(13)~~, wherein a diameter of said base ~~(13a)~~ of the base cone is different than a diameter of the base of the unwind cone ~~having a diameter D2, wherein D1 and D2 are different~~, said method of winding a yarn comprising,

governing the movement of the yarn guide with a first rule for forming a part of the base cone ~~(12)~~ wherein a last layer of yarn deposited according to said first rule going as far as the end ~~(13b)~~ of the unwind cone, and a second rule for terminating the base cone ~~(12)~~ while forming the main body ~~(11)~~ and the unwind cone ~~(13)~~, wherein a first layer of yarn deposited according to the second rule is parallel to a last layer of yarn deposited according to the first rule.

Claim 2 (Currently Amended) The method according to Claim 1, wherein the first rule governing the movement of the yarn guide comprises establishing a plurality of backward and forward motions parallel to an x axis between an initial position (x_o) and a final position (x_z), ~~said positions~~ such that imaginary lines passing through the initial position (x_o) and the final position (x_z) and intersecting the support and each end of the sections of the bobbin are perpendicular to the support ~~(20)~~ and to each of the end sections ~~(12b, 13b)~~ of the bobbin, wherein each backward and forward motion comprises:

[[-]]a starting position (x_j), a first movement having ~~an~~ the initial position (x_o) and ~~a~~ the final position (x_z), wherein said starting position for a movement following the initial movement or a movement subsequent to the initial movement is to the rear of the starting position of a previous movement and in front of the final position (x_z), a position for the last movement is defined by the diameter ~~D1~~ of the base cone ~~(12)~~,

[[-]]an intermediate position (x_i) for reversal of the yarn guide, wherein an intermediate position for a movement is always to the rear of an intermediate position for a previous movement and is to the front of the final position (x_z), and

[[-]]an ending position (x_{j+1}) which is a starting position for the subsequent movement wherein a last intermediate position is the final position (x_z) and the last movement does not cause a reversal.

Claim 3 (Currently Amended) The method according to Claim 2, wherein the second rule governing the movement of the yarn guide comprises executing backward and forward motions parallel to the longitudinal axis ~~(X)~~, between an initial position, said initial position the final position (x_z) of the yarn guide according to the first rule and a terminal position (x_t) between the final position (x_z) according to the first rule, defined by the diameter ~~D2~~ of the

unwind cone ~~(13)~~, and the starting position for the last movement according to the first rule, each backward and forward motion comprising:

[[-]]a starting position (x_k), wherein a position of the first movement is the final position (x_z) according to the first rule, and a position for a subsequent movement is to the rear of the previous movement,

[[-]]an intermediate position (x_m) for reversal of the yarn guide, wherein an intermediate position for the first movement is an ending position corresponding to a position of reversal of a movement at the final position (x_z) according to the first rule, and

[[-]]an ending position (x_{k+1}) wherein said ending position is a starting position for the following movement,

[[-]]the starting and ending positions for a movement always in front of a position for a previous movement to shorten a travel of each movement.

Claim 4 (Currently Amended) The method according to Claim 2, wherein a plurality of successive starting positions (x_j) according to the first rule are separated by ~~an equal~~ a first distance ~~(δ)~~.

Claim 5 (Currently Amended) The method according to Claim 2, wherein a plurality of successive intermediate reversal positions (x_i) according to the first rule are defined by the equation $x_i = x_o + i\Delta$, where Δ is a positive constant which depends on a slope to be given to the third generatrix ~~(L1) of the main body (11)~~, and i varies from 0 to Z, where Z is a non-zero integer.

Claim 6 (Currently Amended) The method according to Claim 3, wherein a plurality of successive starting positions (x_k) according to the second rule are separated by ~~an equal~~ a second distance ~~(δ')~~.

Claim 7 (Currently Amended) The method according to Claim 3, wherein a plurality of successive intermediate reversal positions (x_m) according to the second rule are spaced apart by ~~a~~ the first distance ~~(δ), said distance the same as a distance separating the plurality of successive starting positions (x_j) according to the first rule~~.

Claim 8 (Currently Amended) The method according to Claim 1, wherein the yarn guide ~~(34)~~ is moved concomitantly with ~~a~~ the motion (M) parallel to the longitudinal axis ~~(X)~~ in a coplanar motion (N) perpendicular to the longitudinal axis ~~(X)~~ so that a resulting motion is parallel to the third generatrix ~~(L1) of the main body (11)~~.

Claim 9 (Currently Amended) The method according to Claim 8, wherein a plurality of motions parallel (M) and perpendicular (N) to the longitudinal axis ~~(X)~~ of the yarn guide ~~(34)~~ is produced by an electronic drive device ~~(36)~~.

Claim 10 (Currently Amended) The method according to Claim 8, wherein the yarn guide ~~(34)~~ is moved by running along mechanical guiding means placed parallel to the third generatrix ~~(L1)~~ of the main body ~~(11)~~ being formed.

Claim 11 (Currently Amended) The method according to Claim 1, for which the yarn guide ~~(34)~~ comprises a cam, wherein the speed of rotation of the cam is varied.

Claim 12 (Currently Amended) The method according to Claim 1, wherein a speed of rotation of the spindle ~~(21)~~ is varied.

Claim 13 (Currently Amended) The method according to Claim 1, wherein a speed of movement of the yarn guide parallel to the longitudinal axis ~~(X)~~ is varied.

Claim 14 (Cancelled).

Claim 15 (Currently Amended) A frustoconical bobbin obtained by the method according to Claim 1, wherein ~~an~~ the first acute angle of inclination ~~(α)~~ of the first generatix ~~(L2)~~ of the base cone ~~(12)~~ is between 40° and 75°.

Claim 16 (Currently Amended) A frustoconical bobbin obtained by the method according to Claim 1, wherein the second acute angle of inclination ~~(β)~~ of the second generatix ~~(L3)~~ of the unwind cone ~~(13)~~ is between 30° and 60°.

Claim 17 (Currently Amended) A method of winding a yarn in a plurality of superposed layers onto a cylindrical support having a longitudinal axis and fastened around a spindle driven in a rotational movement, in which the yarn is wound by running over a yarn guide which moves in a backward and forward motion (M) parallel to the longitudinal axis of the support and is controlled so as to form a bobbin having a shape with two frustoconical ends, said bobbin comprising a base cone having a first generatrix inclined at a first acute angle to the longitudinal axis and an unwind cone having a second generatrix inclined at a

second acute angle to the longitudinal axis, and a main body which joins the two frustoconical ends and has a frustoconical shape, said main body comprising a third generatrix, a first end section which forms a base of the base cone, and a second end section which forms a base of the unwind cone, wherein a diameter of said base of the base cone is different than a diameter of the base of the unwind cone, said method of winding a yarn comprising,

governing the movement of the yarn guide with a first rule for forming a part of the base cone wherein a last layer of yarn deposited according to said first rule going as far as the end of the unwind cone, and a second rule for terminating the base cone while forming the main body and the unwind cone, wherein a first layer of yarn deposited according to the second rule is parallel to a last layer of yarn deposited according to the first rule, wherein the first acute angle of inclination of the first generatix of the base cone is between 40° and 75°, and ~~The frustoconical bobbin according to Claim 15,~~ wherein the yarn has a waviness ~~(52)~~ to allow two coils with two superposed layers to intersect at a crossover angle ~~(γ)~~.

Claim 18 (Currently Amended) The frustoconical bobbin according to Claim 17, wherein the crossover angle ~~(γ)~~ is between 0.5° and 6°.

Claim 19 (Currently Amended) The frustoconical bobbin according to Claim 15, wherein said bobbin has a length, measured between the two end bases ~~(12b, 13b)~~ of the base and unwind cones between 150 mm and 500 mm.

Claim 20 (Previously Presented) The method as claimed in Claim 1, comprising collecting a multiplicity of glass filaments formed from a plurality of streams of molten glass

wherein said streams of molten glass emanate from a plurality of orifices of a bushing and combing the glass filaments into said yarn.